



2001 Toxics Release Inventory

MICHIGAN

Reported Releases and Other Waste Management Activities (in pounds)

	Total
On-site Releases	82,472,496
Air Emissions	56,656,492
Surface Water Discharges	1,043,401
Underground Injection Class I Wells	2,509,470
Underground Injection Class II-V Wells	100
On-site Land Releases to RCRA Subtitle C Landfills	12,843,205
Other On-site Land Releases	9,419,827
Off-site Releases (Transfers Off-site to Disposal)*	49,444,297
Total On- and Off-site Releases	131,916,793
Recycled On-site	101,296,499
Recycled Off-site	89,483,441
Energy Recovery On-site	9,885,512
Energy Recovery Off-site	187,813,997
Treated On-site	105,470,376
Treated Off-site**	34,797,894
Quantity Released On- and Off-site***	131,636,741
Total Production-related Waste Managed	660,384,461
Non-production-related Waste Managed	141,624
Transfers Off-site for Further Waste Management, including Disposal	
Recycling	89,316,418
Energy Recovery	199,798,707
Treatment	19,660,736
Publicly Owned Treatment Works (POTWs)	15,667,572
Metals and Metal Category Compounds*	247,148
Non-metal TRI Chemicals**	15,420,424
Other Off-site Transfers****	17,068
Transfers Off-site to Disposal (not including metals to POTWs)	49,593,734
Total Transfers Off-site for Further Waste Management, including Disposal	374,054,235

* Transfers to POTWs of metals and metal category compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

** Transfers to POTWs of non-metals are included in treated off-site waste management activity.

*** Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.

**** Transfers reported without a valid waste management code.

For More Information . . .

State Contact

Robert Jackson
P.O. Box 30457
Lansing, MI 48909
(517) 373-8481
Fax: (517) 241-7966
jacksorc@michigan.gov

EPA Regional Contact

Thelma Codina
USEPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604
(312) 886- 6219
codina.thelma@epa.gov

To obtain TRI data use
assistance, call TRI User
Support Service (TRI-US):
(202) 566-0250
tri.us@epa.gov



The largest circle in the state map represents the largest facility for on-site releases in the state of Michigan. All circles are proportionally-sized to represent the on-site releases at each facility within this state.

State/TRI Data

Population	10,006,266
Square Miles	56,809
Total Facilities	939
Total Forms	3,839
Form As	373

	Total
National Rank for Total On- and Off-site Releases*	
Rank	14
Pounds	131,916,793
National Rank for Total On-site Releases**	
Rank	18
Pounds	82,472,496
National Rank for Total Releases within State***	
Rank	12
Pounds	144,825,129
National Rank for Production-related Waste Managed	
Rank	16
Pounds	660,384,461

* Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

** Includes amounts released at the facility. Excludes amounts transferred to other sites.

*** Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.



2001 Toxics Release Inventory

MICHIGAN

On-site and Off-site Releases for Top Five Chemicals Ranked on Total Releases in the State (All Chemicals)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
—	Zinc compounds	232,287	21,331	13,000	653,887	29,956,261	30,876,766	1,950,392	29,802,759	246,976
7647-01-0	Hydrochloric acid	28,082,208	0	5	0	700	28,082,913	0	700	0
—	Barium compounds	175,656	37,006	0	5,522,759	2,366,863	8,102,284	433,307	2,364,294	2,569
—	Nickel compounds	26,240	1,553	0	4,133,770	2,241,274	6,402,837	260,436	2,302,120	63,673
—	Manganese compounds	77,812	86,550	11,000	1,038,987	3,888,786	5,103,135	635,031	3,901,360	12,426

On-site and Off-site Releases for PBT Chemicals Ranked on Total Releases in the State

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
—	Lead compounds	34,218.04	5,047.88	2.00	635,232.00	1,040,888.34	1,715,388.25	1,614,105.83	1,032,118.46	12,247.00
1336-36-3	Polychlorinated biphenyls (PCBs)	95.00	0.00	0.00	1,247,638.00	1,974.14	1,249,707.14	329.09	1,974.14	0.00
7439-92-1	Lead	10,446.34	74.63	0.00	7,248.58	115,079.74	132,849.28	219,061.82	88,499.74	26,581.20
—	Polycyclic aromatic compounds	34,461.02	30.63	0.00	15,481.78	11,589.21	61,562.64	19,271.75	10,564.21	1,025.00
—	Mercury compounds	3,243.00	21.81	0.00	14,524.74	6,347.36	24,136.91	7,147.31	6,325.16	22.20
118-74-1	Hexachlorobenzene	124.51	0.00	0.00	4,189.00	2,467.00	6,780.51	2.74	2,048.00	419.00
191-24-2	Benzo(g,h,i)perylene	3,777.92	15.90	0.00	1,094.61	637.14	5,525.57	680.75	503.14	134.00
8001-35-2	Toxaphene	39.00	0.00	0.00	1,690.00	825.00	2,554.00	235.61	825.00	0.00
7439-97-6	Mercury	752.64	0.00	0.00	44.00	892.60	1,689.24	24,887.35	87.97	820.00
57-74-9	Chlordane	5.00	0.00	0.00	277.00	219.00	501.00	0.00	205.00	14.00
465-73-6	Isodrin	0.00	0.00	0.00	19.00	15.00	34.00	2.23	15.00	0.00
76-44-8	Heptachlor	0.00	0.00	0.00	23.00	0.00	23.00	0.00	0.00	0.00
—	Dioxin and dioxin-like compounds	0.06	0.01	0.00	1.61	0.34	2.02	0.16	0.34	0.00
—	<i>Dioxin and dioxin-like compounds (in grams)</i>	<i>25.334</i>	<i>2.565</i>	<i>0.000</i>	<i>731.921</i>	<i>156.237</i>	<i>916.057</i>	<i>72.723</i>	<i>156.237</i>	<i>0.000</i>
309-00-2	Aldrin	—***	—	—	—	—	—	—	—	—
72-43-5	Methoxychlor	—***	—	—	—	—	—	—	—	—
29082-74-4	Octachlorostyrene	—***	—	—	—	—	—	—	—	—
40487-42-1	Pendimethalin	—***	—	—	—	—	—	—	—	—
608-93-5	Pentachlorobenzene	—***	—	—	—	—	—	—	—	—
79-94-7	Tetrabromobisphenol A	—***	—	—	—	—	—	—	—	—
1582-09-8	Trifluralin	—***	—	—	—	—	—	—	—	—

* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

*** No reports were submitted for these chemicals.

** The chemical ranking is based on the amounts in this column.



2001 Toxics Release Inventory

MICHIGAN

On-site and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (All Chemicals)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases	
	Underground Injection				On-site Releases to Land			(Transfers Off-site to Disposal)	
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds		Transferred Within State Pounds	Transferred Out of State Pounds
Wayne Disposal Inc., Belleville, Wayne	23,615	0	0	0	12,752,780	0	12,776,395	5,422,836	19,802
Detroit Edison Monroe Power Plant, Monroe, Monroe	10,136,199	27,240	0	0	0	2,305,120	12,468,559	4	0
J. H. Campbell Generating Plant, West Olive, Ottawa	5,936,160	3,594	0	0	0	2,009,897	7,949,651	0	0
De Karn - JC Weadock Generating Plant, Essexville, Bay	2,763,890	11,681	0	0	0	1,351,863	4,127,434	0	0
Detroit Edison-Trenton Channel Power Plant, Trenton, Wayne	2,293,710	3,872	0	0	0	39,661	2,337,243	830,091	0
Pfizer Inc. Parke-Davis Div., Holland, Ottawa	44,892	0	2,275,110	0	0	0	2,320,002	15,295	255
Holcim (US) Inc. - Dundee Plant, Dundee, Monroe	1,940,986	0	0	0	0	9,291	1,950,277	50	0
Lansing Board of Water & Light- Eckert, Lansing, Ingham	1,872,689	722	0	0	0	0	1,873,411	744,753	0
Detroit Edison River Rouge Power Plant, River Rouge, Wayne	1,655,062	9,163	0	0	0	7,148	1,671,372	483,555	0
J. R. Whiting Generating Plant, Erie, Monroe	1,126,476	8,211	0	0	0	469,196	1,603,883	0	0

On-site and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (PBT Chemicals)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases	
	Underground Injection				On-site Releases to Land			(Transfers Off-site to Disposal)	
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds		Transferred Within State Pounds	Transferred Out of State Pounds
Wayne Disposal Inc., Belleville, Wayne	550.00	0.00	0.00	0.00	1,688,732.00	0.00	1,689,282.00	216,217.00	1,592.00
GMC Saginaw Metal Casting Ops., Saginaw, Saginaw	554.01	0.00	0.00	0.00	0.00	58,044.00	58,598.01	117.00	13.00
Detroit Edison Monroe Power Plant, Monroe, Monroe	1,253.90	161.00	0.00	0.00	0.00	43,215.00	44,629.90	4.40	0.00
J. H. Campbell Generating Plant, West Olive, Ottawa	524.00	0.00	0.00	0.00	0.00	40,119.00	40,643.00	0.00	0.00
De Karn – JC Weadock Generating Plant, Essexville, Bay	703.00	1.00	0.00	0.00	0.00	29,063.00	29,767.00	0.00	0.00
Holcim (US) Inc. - Dundee Plant, Dundee, Monroe	19,080.00	0.00	0.00	0.00	0.00	8,163.00	27,243.00	0.45	0.00
McLaren Performance Techs., Livonia, Wayne	14,153.00	0.00	0.00	0.00	0.00	0.00	14,153.00	0.00	0.00
National Steel Corp. Greatlakes Ops., Ecorse, Wayne	13,452.30	460.00	0.00	0.00	0.00	0.00	13,912.30	201,201.00	988.00
J. R. Whiting Generating Plant, Erie, Monroe	117.00	1.00	0.00	0.00	0.00	11,596.00	11,714.00	0.00	0.00
Lafarge Midwest Inc., Alpena, Alpena	75.50	25.00	0.00	0.00	0.00	10,577.00	10,677.50	73.40	0.00

* The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.



2001 Toxics Release Inventory

MICHIGAN

Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (All Chemicals)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site* Pounds	Total Production-related Waste Managed Pounds	Total Non-Production-related Waste Managed Pounds
Wayne Disposal Inc., Belleville, Wayne	0	0	0	0	226,822	0	18,297,955	18,524,777	0
Rouge Steel Co., Dearborn, Wayne	0	142,627	0	0	0	0	14,669,143	14,811,770	0
National Steel Corp. Greatlakes Ops., Ecorse, Wayne	4,944,200	6,251	0	0	2,795,000	118,191	14,600,525	22,464,167	0
Detroit Edison Monroe Power Plant, Monroe, Monroe	0	0	0	0	2,914,547	0	12,459,702	15,374,249	0
J. H. Campbell Generating Plant, West Olive, Ottawa	283,583	0	0	0	835,000	0	7,659,685	8,778,268	0
De Karn - JC Weadock Generating Plant, Essexville, Bay	130,670	0	0	0	648,000	0	3,993,453	4,772,123	0
Detroit Edison-Trenton Channel Power Plant, Trenton, Wayne	0	0	0	0	664,650	1	3,172,290	3,836,940	0
Lansing Board of Water & Light- Eckert, Lansing, Ingham	0	233,020	0	0	0	0	2,611,164	2,844,185	0
T.E.S. Filer City Station, Filer City, Manistee	0	0	0	0	561,025	0	2,529,134	3,090,159	0
Pfizer Inc. Parke-Davis Div., Holland, Ottawa	412,679	4,688,053	0	27,695,138	811,598	120,931	2,328,444	36,056,843	181

Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (PBT Chemicals)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site* Pounds	Total Production-related Waste Managed Pounds	Total Non-Production-related Waste Managed Pounds
Wayne Disposal Inc., Belleville, Wayne	0.00	0.00	0.00	0.00	5,340.00	0.00	1,907,675.00	1,913,015.00	0.00
Perma-Fix of Michigan Inc., Brownstown, Wayne	0.00	0.00	0.00	0.00	0.00	0.00	258,512.00	258,512.00	0.00
National Steel Corp. Greatlakes Ops., Ecorse, Wayne	260,000.00	1.00	0.00	0.00	0.00	0.00	213,550.00	473,551.00	0.00
Rouge Steel Co., Dearborn, Wayne	0.00	9,002.00	0.00	0.00	0.00	0.00	207,672.00	216,674.00	0.00
U.S. Liquids of Detroit Inc., Detroit, Wayne	0.00	0.00	0.00	0.00	0.00	909.00	62,408.00	63,317.00	0.00
GMC Saginaw Metal Casting Ops., Saginaw, Saginaw	0.00	0.00	0.00	0.00	0.00	0.00	59,054.00	59,054.00	0.00
Detroit Edison Monroe Power Plant, Monroe, Monroe	0.00	0.00	0.00	0.00	514,547.00	0.00	44,629.00	559,176.00	0.00
J. H. Campbell Generating Plant, West Olive, Ottawa	1,823.00	0.00	0.00	0.00	0.00	0.00	38,685.00	40,508.00	0.00
Sandvik Steel Co., Benton Harbor, Berrien	0.00	0.00	0.00	0.00	0.00	0.00	32,313.00	32,313.00	0.00
De Karn - JC Weadock Generating Plant, Essexville, Bay	870.00	0.00	0.00	0.00	0.00	0.00	28,453.00	29,323.00	0.00

* The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.